

WE CLAIM

- 1 1. A pressure measuring device, said device comprising:
2 a housing;
3 at least one pressure responsive element disposed within said housing;
4 a movement mechanism having an input end in proximity to a moveable surface of
5 said at least one pressure responsive element;
6 an indicator connected to an output end of said movement mechanism which
7 indicates changes in pressure;
8 and shock absorbing means for creating a noncontinuous path for preventing
9 impinging shock and input loads from reaching the components disposed within said housing.
- 1 2. A pressure measuring device as recited in Claim 1, wherein said shock absorbing
2 means includes a bumper mounted onto the exterior of said housing, said bumper having a
3 periphery including at least one extending portion extending beyond said periphery, said
4 extending portion defining at least one gap region for absorbing a shock or impact load applied
5 thereto.
- 1 3. A pressure measuring device as recited in Claim 2, wherein at least one extending
2 portion of said bumper extends axially above a viewing window attached to an upper portion of
3 said housing.
- 1 4. A pressure measuring device as recited in Claim 2, wherein at least one extending
2 portion of said bumper extends radially outward from the periphery of said bumper.
- 1 5. A pressure measuring device as recited in Claim 1, wherein said housing includes
2 an upper portion and a lower portion, said lower portion having means for directly engaging an
3 inflatable blood pressure sleeve.

1 6. A pressure measuring device as recited in Claim 5, wherein said shock absorbing
2 means includes at least one circumferential channel formed in the lower portion of said housing.

1 7. A pressure measuring device as recited in Claim 6, wherein said circumferential
2 channel is disposed in a bottom surface of said lower housing portion.

1 8. A pressure measuring device as recited in Claim 6, wherein said circumferential
2 channel is disposed adjacent the bottom surface of said lower housing portion.

1 9. A pressure measuring device as recited in Claim 5, wherein said engaging means
2 of said lower housing portion includes an engagement end sized for direct coupling to an
3 inflatable blood pressure sleeve without requiring hoses.

1 10. A pressure measuring device as recited in Claim 9, wherein said engagement end is
2 a substantially cylindrical section having an opening to permit fluid communication between the
3 interior of an inflatable blood pressure sleeve and the interior of said housing.

1 11. A pressure measuring device comprising: a housing having an upper portion and a
2 lower portion, said lower portion including at least one engagement portion for permitting direct
3 mounting to an inflatable blood pressure sleeve.

1 12. A pressure measuring device as recited in Claim 11, wherein said engagement
2 portion includes at least one circumferential channel adjacent a depending end
3 thereof for reducing the transmission of shock or impact loads to a movement
4 mechanism retained within said housing.

1 13. A pressure measuring device as recited in Claim 12, wherein at least one
2 circumferential channel is disposed on a bottom surface of said engagement
3 portion.

1 14. A pressure measuring device as recited in Claim 12, wherein at least one
2 circumferential channel is disposed along an axial portion of said engagement
3 portion.

1 15. A pressure measuring device as recited in Claim 11, including said inflatable blood
2 pressure sleeve, said sleeve having a receiving portion for directly receiving said
3 engagement portion, said receiving portion having an opening which permits fluid
4 communication between the interior of the sleeve and the interior of the housing.

1 16. A pressure measuring device as recited in Claim 11, including a movement
2 mechanism disposed within said housing and shock absorbing means for preventing the
3 transmission of certain shock and impact loads to the movement mechanism, said shock absorbing
4 means including means for creating a discontinuous path for said shock and impact loads.

1 17. A pressure measuring device as recited in Claim 16, wherein said shock absorbing
2 means includes a peripheral bumper mounted onto the exterior of said housing, said bumper
3 having a periphery including at least one extending portion extending beyond said periphery, said
4 extending portion including at least one gap region defining a buffer for absorbing a shock or
5 impact load applied thereto.

1 18. A pressure measuring device as recited in Claim 17, wherein said at least one
2 extending portion of said peripheral bumper extends axially above a viewing window attached to
3 said upper portion of said housing.

1 19. A pressure measuring device as recited in Claim 17, wherein at least one extending
2 portion of said peripheral bumper extends radially outward from the periphery of said bumper.

1 20. A pressure measuring device as recited in Claim 16, wherein said shock absorbing
2 means includes at least one circumferential channel in said lower portion.

1 21. A pressure measuring device as recited in Claim 20, wherein said at least one
2 circumferential channel is disposed in said engagement portion.

1 22. A pressure measuring device as recited in Claim 21, wherein said circumferential
2 channel is cut into a bottom surface of said engagement portion.

1 23. A pressure measuring device as recited in Claim 21, wherein said circumferential
2 channel is cut adjacent to a depending end of said engagement portion.